

A NEW SPECIES OF MOTH DESTRUCTIVE TO PINE CONES IN MEXICO (TORTRICOIDEA)

WILLIAM E. MILLER

North Central Forest Experiment Station, Forest Service, U.S.D.A.,
St. Paul, Minnesota¹

Moth specimens sent to me for identification by the Instituto Nacional de Investigaciones Forestales (Mexico) included a species of *Laspeyresia* that is apparently undescribed. Feeding in the cones of Mexican white pine, *Pinus ayacahuite* Ehrenb., its larvae reduce seed yields, thereby hindering forestation efforts. The purpose of the present paper is to name this new species. The biology of this and other Mexican seed-destroying insects is being studied by the Instituto.

Laspeyresia nigra Miller, new species

Length of forewing 8.0 mm. Head, face, labial palpus clothed with white-tipped black scales; collar of shiny black scales. Thorax clothed dorsally with shiny black scales; patagium similarly clothed, except posterior scales faintly lighter toward tips. Ventrally, thorax covered with shiny, dark gray scales. Front leg, tibia and tarsi of middle leg, and tarsi of hind leg clothed with dark gray scales, narrowly tipped with white; remaining leg segments with shiny, dark gray scales. Upperside of forewing (Figure 1a) with shiny black scales in basal fifth; white-tipped, sooty black scales in remainder, except for crossbands. Three lead-colored crossbands present, more or less bordered by black scales: basal crossband crossing wing completely; middle one extending from costa nearly across wing, constricted near center; apical one intermittent, following edge of wing except bending inward near costa. Costa with three small spots of lead-colored scales between apical and middle crossbands. Forewing fringe gray, a black line running along fringe base. Upperside of hindwing sooty black; fringe gray. Undersides of fore- and hindwings dark gray, almost black. Outline of valva as in Figure 2a. (Abdominal coloration not studied before abdomen was cleared and mounted on microslide.)

Holotype, male: Mexico, Tlaxco, Tlaxcala (approximately 19°30' north latitude, 98°08' west longitude), February, 1964. The above description is based solely on the holotype male which is labeled: "En semilla *P. ayacahuite*, Tlaxco, Tlax., Feb. 1964; ♂ genitalia slide 378, 5.22.64, C. D. Waddell." The holotype has been deposited in the U. S. National Museum, Washington, D. C. (Type Number 67798).

Besides the holotype, I studied four females from Tlaxco. All had forewings 8.0 mm. long, the same as the holotype. There was virtually no variation in external appearance among the four females and holotype male. However, the lamella postvaginalis (Figure 2c) varied slightly in the outline of its posterior margin. Nomenclature of genital parts follows Klots (1956).

¹ The Station is maintained in cooperation with the University of Minnesota.

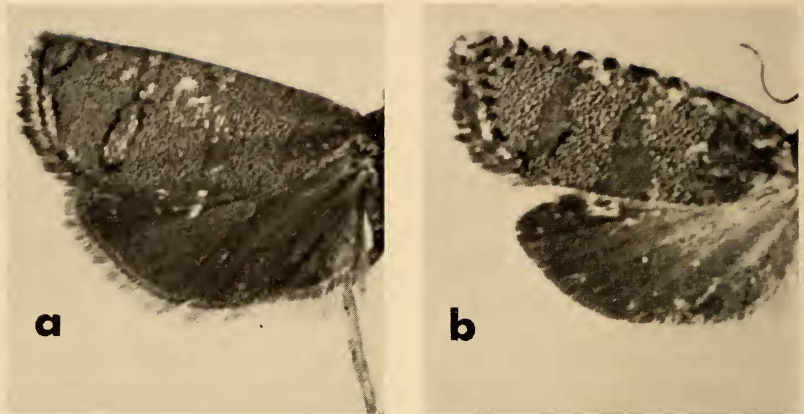


Fig. 1. Wings of *Laspeyresia* species; (a) *L. nigra* Miller, holotype; (b) *L. miscitata* Heinrich.

One of the females, with same label information as the holotype except where noted, is designated the allotype: “. . . Dic. 1963; ♀ genitalia slide 394, 7.2.64. . .” and is in the U. S. National Museum.

The adult is strikingly dark—hence the name *nigra*. It is most like *Laspeyresia miscitata* Heinrich (Figures 1b and 2b, d) but is distinguished by the following: absence of white spots along the forewing costa; darker hindwings, particularly the fringe; more heavily sculptured

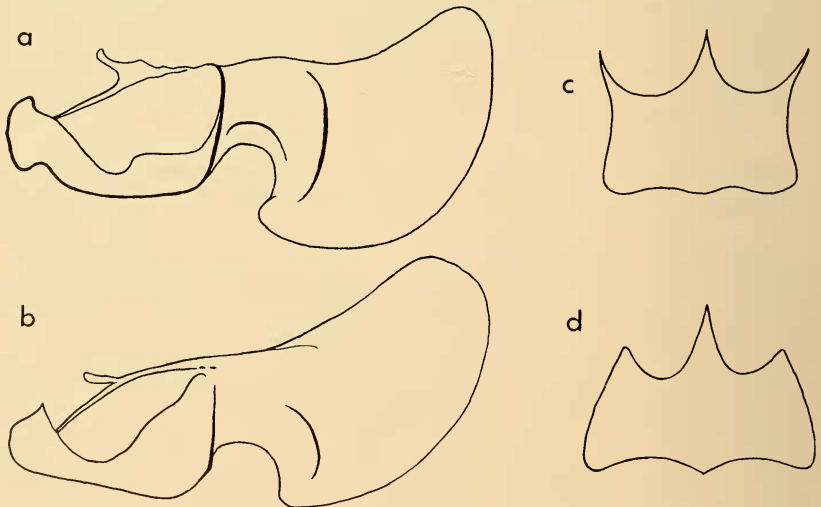


Fig. 2. Outline of genital parts of *Laspeyresia* species; (a) valva of *L. nigra* Miller, holotype; (b) valva of *L. miscitata* Heinrich, holotype; (c) lamella postvaginalis of *L. nigra*; (d) lamella postvaginalis of *L. miscitata*.

valva with less opening in proximal area; less anteriorly tapered lamella postvaginalis. Also, the aedeagus of the *L. nigra* holotype has 13 cornuti and is about one and a half times longer than the aedeagi of *L. miscitata* males examined (holotype and three paratypes) which have only 4 to 8 cornuti. The taxonomy of other North American seed-feeding *Laspeyresia* moths affecting pine is discussed by Heinrich (1926) and Miller (1959).

The one known host of *L. nigra*, Mexican white pine, belongs to the *Haploxyton* or soft pine subgenus while the hosts of *L. miscitata*, *Pinus ponderosa* Laws. and *P. jeffreyi* Grev. and Balf. (Keen, 1958), are members of the *Diploxyton* or hard pine subgenus.

ACKNOWLEDGMENT

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LITERATURE CITED

- HEINRICH, C. 1926. Revision of the North American moths of the subfamilies Laspeyresinae and Olethreutinae. U. S. Natl. Mus. Bull. 132, 216 pp.
- KEEN, F. P. 1958. Cone and seed insects of western forest trees. U. S. Dept. Agr. Tech. Bull. 1169, 168 pp.
- KLOTS, A. B. 1956. Lepidoptera, pp. 97-111. In: Taxonomist's Glossary of Genitalia in Insects, S. L. Tuxen, ed. 284 pp. Ejnar Munksgaard, Copenhagen.
- MILLER, W. E. 1959. A unique new North American species of pine-cone-feeding *Laspeyresia* related to *L. ingens* Heinrich (Lepidoptera, Olethreutidae). Florida Entom., 42: 131-134.

BUTTERFLIES OF YAKIMA COUNTY, WASHINGTON, ADDITIONS AND CORRECTIONS

E. J. NEWCOMER

1509 Summitview, Yakima, Washington

After the "Butterflies of Yakima County, Washington" was published (Newcomer, 1964), two additional species were taken in the county. Through the cooperation of the U. S. Bureau of Indian Affairs I was issued permits to collect on the Yakima Indian Reservation in 1964 and 1965. Much of the restricted area of the Reservation is heavily forested with *Pinus ponderosa* and other conifers. Collecting is not very good in heavy forest except in the occasional open meadow.

Signal Peak, about 15 miles east of Mt. Adams,¹ has an elevation of 5,111 feet, and above 4,800 feet much of it is open and grassy with many

¹This would place it on the map (Newcomer, 1964) about halfway between Nos. 20 and 24.